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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,382	03/09/2004	Megan A. Fannon	107044-0046	1912
24267	7590	11/14/2007		
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			EXAMINER ECHELMAYER, ALIX ELIZABETH	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 11/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,382

Applicant(s)

FANNON ET AL.

Examiner

Alix Elizabeth Echelmeyer

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,18,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,18,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/10/04, 8/22/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restriction

1. This Office Action is in response to the Election filed August 31, 2007. Claims 3-5, 7-17, 19 and 20 have been cancelled. Applicant has elected Species I, with the coupling mechanism being a plug member with socket. Only claims reading on this election remain.
2. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Information Disclosure Statement

3. The Information Disclosure Statements filed August 10, 2004 and August 22, 2005 have been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6, ^{18,} 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al (US 2002/0076597).

Regarding claims 1 and 21, Chang et al. teach a direct methanol fuel cell pack containing a plurality of cells. Each cell contains an anode, cathode and membrane, with current collectors corresponding to the two electrodes. Further, the array contains electrical connection members for connecting adjacent cells (abstract, Figure 9).

As for claims 6, 18 and 22, the cells are mechanically coupled by a first mechanical coupling component, or screw (18a), which is connected to a second mechanical coupling component, or plate (11) (see Figure 3, [0049]).

With further regard to claim 18, the cathode of one cell is connected to the anode of the next cell (Figures 9, 10). One of ordinary skill in the art would recognize that the cells of Chang et al. would have been connected using a method comprising providing a plurality of cells, connecting the cells electrically (as seen in Figure 9), and connecting the cells mechanically (See Figure 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. as applied to claim 1 above, and in further view of Aronsson (US 2003/0054240).

The teachings of Chang et al. as discussed above are incorporated herein.

Chang et al. teaches an array of cells coupled to one another, but fails to teach that the coupling is by a plug and socket mechanism.

Aronsson teaches a multicellular battery, but the structure of Aronsson can also be used to attach fuel cells ([0003]).

Aronsson teaches connecting the cells with a plug and socket mechanism (see Figure 9).

Aronsson further teaches that such a connection is desirable since it does not require external connections and makes the cells easy to insert and remove ([0014], [0015]).

It would be desirable to connect the cells of Chang et al. in the plug and socket manner of Aronsson since the connection system of Aronsson does not require external connections and makes the cells easy to insert and remove.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the cells of Chang et al. in the plug and socket manner of Aronsson since the connection system of Aronsson does not require external connections and makes the cells easy to insert and remove.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alix Elizabeth Echelmeyer whose telephone number is 571-272-1101. The examiner can normally be reached on Mon-Fri 7-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy N. Tsang-Foster can be reached on 571-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alix Elizabeth Echelmeyer
Examiner
Art Unit 1795

aee


SUSY TSANG-FOSTER
SUPERVISORY PATENT EXAMINER